Amendments In the Claims

Please amend Claims 1, 5-8, 10, 12, 13, 18, 19, 21, 23, 24, 26, 28, 30, 32 and 34 as follows:

1.   (**Currently Amended**) A method for transporting information over a network comprising:

decomposing **an input** a̶ datastream into a plurality of sub-streams; and

communicating said sub-streams between a first network element and a second

network element of said network by transporting each one of said sub-

streams over one of a plurality of channels, wherein

a bandwidth of said **input** datastream is greater than a bandwidth of any

one of said channels.

2.   (Original) The method of claim 1, wherein each of said channels is an optical channel.

3.   (Original) The method of claim 2, wherein each of said optical channels corresponds to a wavelength.

4.   (Original) The method of claim 1, wherein said each one of said sub-streams has a bandwidth that is equal to or less than a bandwidth of a corresponding one of said channels.

5.   (**Currently Amended**) The method of claim 1, further comprising: assembling said sub-streams into a reconstructed **output** datastream.

6.   (**Currently Amended**) The method of claim 5, wherein said assembling comprises:

placing a portion of each of said substreams in a queue, wherein said

reconstructed **output** datastream is output by said queue.

7.   **(Currently Amended)** The method of claim 5, further comprising:

performing protocol processing on said **input** datastream; and

performing protocol processing on said reconstructed **output** datastream.

8.   **(Currently Amended)** The method of claim 1, further comprising:

performing compression on a one of said **sub-streams** ~~datastreams~~, wherein said

one of said **sub-streams** ~~datastreams~~ has a bandwidth greater than a

corresponding one of said channels.

9.   (Original) The method of claim 1, wherein said network is an existing

network.

10.   **(Currently Amended)** The method of claim 1, wherein

said network comprises an underlying network infrastructure, and

the method is performed without alteration of said underlying network

infrastructure.

11.   (Original) The method of claim 10, wherein said network comprises a

fiber-optic system.

12.   **(Currently Amended)** The method of claim 1, wherein said

decomposition comprises:

placing a portion of said **input** datastream in one of a plurality of queues, wherein

each of said queues corresponds to a one of said channels.

13.   **(Currently Amended)** A method for receiving information transported

over a network comprising:

receiving a plurality of sub-streams, wherein

said sub-streams are created by decomposing **an input** ~~a~~ datastream into

said sub-streams,

each of said sub-streams is transported over said network on a

corresponding one of a plurality of channels, and

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a bandwidth of said **input** datastream is greater than a bandwidth of any

one of said channels; and

assembling said sub-streams into a reconstructed **output** datastream.

14.   (Original) The method of claim 13, wherein

each of said channels is an optical channel.

15.   (Original) The method of claim 14, wherein

each of said optical channels corresponds to a wavelength.

16.   (Original) The method of claim 13, wherein

said each one of said sub-streams has a bandwidth that is equal to or less than a

bandwidth of said corresponding one of said channels.

17.   (Original) The method of claim 13, wherein said assembling comprises:

placing a portion of each of said substreams in a queue, wherein said

reconstructed datastream is output by said queue.

18.   **(Currently Amended)** The method of claim 13, further comprising:

decomposing said **input** datastream into said sub-streams; and

transporting said each of said sub-streams over said network on said

corresponding one of a plurality of channels.

19.   **(Currently Amended)** The method of claim 13, further comprising:

performing protocol processing on said **input** datastream; and

performing protocol processing on said reconstructed **output** datastream.

20.   (Original) The method of claim 13, wherein said network is an existing

network.

21.   **(Currently Amended)** The method of claim 13, wherein

said network comprises an underlying network infrastructure, and

the method is performed without alteration of said underlying network

infrastructure.

22.   (Original) The method of claim 21, wherein said network comprises a fiber-optic system.

23.   (**Currently Amended**) The method of claim 13, wherein said decomposition comprises:

> placing a portion of said **input** datastream in one of a plurality of queues, wherein each of said queues corresponds to a one of said channels.

24.   (**Currently Amended**) An apparatus for transporting information over a network comprising:

> a first sub-stream management device, comprising
>
> > an input configured to receive **an input** a datastream, and
> > a plurality of outputs, wherein
> >
> > > each of said outputs is configured to output one of a plurality of sub-streams, **wherein**
> > >
> > > > **the input datastream is decomposed to form the plurality of sub-streams,**
> > >
> > > each of said sub-streams is transported over said network on a corresponding one of a plurality of channels, and
> > > a bandwidth of said **input** datastream is greater than a bandwidth of any one of said channels.

25.   (Original) The apparatus of claim 24, wherein each of said channels is an optical channel.

26.   (**Currently Amended**) The **apparatus** ~~method~~ of claim 25, wherein each of said optical channels corresponds to a wavelength.

27.   (Original) The apparatus of claim 24, wherein said each one of said sub-streams has a bandwidth that is equal to or less than a bandwidth of said corresponding one of said channels.

28. **(Currently Amended)** The apparatus of claim 24, further comprising a second sub-stream management device, comprising

an output configured to output a reconstructed **output** datastream, and

a plurality of inputs, wherein

each of said inputs is configured to receive one of said sub-streams; and

an underlying network infrastructure, communicatively coupled to said first and said second sub-stream management devices, and comprising said channels.

29. (Original) The apparatus of claim 28, further comprising

a first protocol processor, coupled to said input; and

a second protocol processor, coupled to said output.

30. **(Currently Amended)** An apparatus for transporting information over a network comprising:

a first sub-stream management device, comprising

an output configured to output a reconstructed **output** datastream, and

a plurality of inputs, wherein

each of said inputs is configured to receive one of a plurality of sub-streams,

said sub-streams are created by decomposing **an input** a~~ ~~datastream into said sub-streams,

each of said sub-streams is transported over said network on a corresponding one of a plurality of channels, and

a bandwidth of said **input** datastream is greater than a bandwidth of any one of said channels.

31. (Original) The apparatus of claim 30, wherein

each of said channels is an optical channel.

32. **(Currently Amended)** The **apparatus** ~~method~~ of claim 31, wherein each of said optical channels corresponds to a wavelength.

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33.   (Original) The apparatus of claim 30, wherein

said each one of said sub-streams has a bandwidth that is equal to or less than a

      bandwidth of said corresponding one of said channels.

34.   **(Currently Amended)** The apparatus of claim 30, further comprising

a second sub-stream management device, comprising

      an input configured to receive said **input** datastream, and

      a plurality of outputs, wherein

            each of said outputs is configured to output one of said sub-

                  streams; and

an underlying network infrastructure, communicatively coupled to said first and

      said second sub-stream management devices, and comprising said

      channels.

35.   (Original) The apparatus of claim 34, further comprising

a first protocol processor, coupled to said input; and

a second protocol processor, coupled to said output.